Serial No. 10/739,228 Docket No. SJO920030054US1 Firm No. 0037.0230

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1-23. (Canceled)
- 24. (Currently Amended) The method of claim 37, wherein the plurality of storage entity objects include at least one of a disk array system object, storage pool object, volume object, host system, Fibre Channel object, [[;]] Port object, and disk object.
- 25. (Currently Amended) The method of claim 24, wherein the top level storage entity comprises the disk array system <u>object</u>, and wherein each <u>storage</u> object other than the disk array system <u>object</u> is associated as a component of the disk array system object or a subcomponent of one of the components of the disk array system object.
 - 26. (Canceled)
- 27. (Previously Presented) The method of claim 37, wherein the creating operation comprises creating a plurality of storage objects, and wherein the storage objects have associations to each other that are consistent with corresponding storage entities' relationships modeled in a Storage Management Initiative Specification (SMI-S/Bluefin) profile.
 - 28. (Canceled)
- 29. (Previously Presented) The method of claim 37, wherein the inquiry is received from a Storage Resource Manager (SRM) CIM Client Application.
 - 30. (Canceled)

31. (Previously Presented) The method of claim 37, wherein the inquiry includes the unique ID for a disk array, wherein the components and subcomponents for which information is obtained comprise storage pools and disks, and wherein the relationships indicate a relationship of storage pools to the disk array system and of the disks to the storage pools.

32-36. (Canceled)

37. (Previously Presented) A computer implemented method for responding to an inquiry, comprising the following operations:

receiving a first single inquiry from a Common Information Model (CIM) client application including a unique ID of a top level storage entity, wherein the top level storage entity identified by the unique ID includes components associated as a component of the top level storage entity and a subcomponent of at least one component;

using CIM client Application Programming Interfaces (APIs) in response to the first single inquiry to obtain information from a CIM Object Manager (CIMOM) using the unique ID of the top level storage entity to obtain information on components and subcomponents of the top level storage entity from multiple CIM objects on the top level storage entity and components and subcomponents of the top level storage entity in the CIMOM;

creating a plurality of storage objects in a computer readable storage medium including information on the top level storage entity and components and subcomponents, and parent-child relationships among the top level storage entity and the components and subcomponents of the top level storage entity;

populating the created storage objects with information received from the CIMOM including identifying the entities in the top level storage entity and the parent child relationships of the top level storage entity, components and subcomponents, and wherein properties of each storage object map directly to properties of at least one CIM class used to represent the top level storage entity and components and subcomponents of the top level storage entity in the CIMOM;

returning information on the storage objects to the CIM client application that sent the first single inquiry; and

receiving a second single inquiry including the unique ID of a component storage entity, wherein the receiving, obtaining, creating, populating, and sending operations are repeated to

obtain information concerning the component storage entity and the component storage entity's relationships to other components.

38. (Previously Presented) A system in communication with a CIMOM for responding to an inquiry from a host, comprising:

a processor; and

a computer readable storage medium having code executed by the processor to perform operations, the operations comprising:

receiving a first single inquiry from a Common Information Model (CIM) client application including a unique ID of a top level storage entity, wherein the top level storage entity identified by the unique ID includes components associated as a component of the top level storage entity and a subcomponent of at least one component;

using CIM client Application Programming Interfaces (APIs) in response to the first single inquiry to obtain information from a CIM Object Manager (CIMOM) using the unique ID of the top level storage entity to obtain information on components and subcomponents of the top level storage entity from multiple CIM objects on the top level storage entity and components and subcomponents of the top level storage entity in the CIMOM;

creating a plurality of storage objects in a computer readable storage medium including information on the top level storage entity and components and subcomponents, and parent-child relationships among the top level storage entity and the components and subcomponents of the top level storage entity;

populating the created storage objects with information received from the CIMOM including identifying the entities in the top level storage entity and the parent child relationships of the top level storage entity, components and subcomponents, and wherein properties of each storage object map directly to properties of at least one CIM class used to represent the top level storage entity and components and subcomponents of the top level storage entity in the CIMOM; and

returning information on the storage objects to the CIM client application that sent the first single inquiry; and

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receiving a second single inquiry including the unique ID of a component storage entity, wherein the receiving, obtaining, creating, populating, and sending operations are repeated to obtain information concerning the component storage entity and the component storage entity's relationships to other components.

- 39. (Currently Amended) The system of claim 38, wherein the plurality of storage entity objects include at least one of a disk array system object, storage pool object, volume object, host system object, Fibre Channel object[[;]], Port object, and disk object.
- 40. (Currently Amended) The system of claim 39, wherein the a top level storage entity comprises the disk array system <u>object</u>, and wherein each <u>storage</u> object other than the disk array system <u>object</u> is associated as a component of the disk array system object or a subcomponent of one of the components of the disk array system object.
- 41. (Previously Presented) The system of claim 38, wherein the first single inquiry is received from a SRM CIM Client Application.
 - 42. (Canceled)
 - 43. (Canceled)
- 44. (Previously Presented) A computer readable storage medium include code executed to communicate with a Common Information Model Object Manager (CIMOM) to respond to an inquiry from a host and to perform operations, the operations comprising:

receiving a single inquiry from a Common Information Model (CIM) client application including a unique ID of a top level storage entity, wherein the top level storage entity identified by the unique ID includes components associated as a component of the top level storage entity and a subcomponent of at least one component;

using CIM client Application Programming Interfaces (APIs) in response to the single inquiry to obtain information from a CIMOM using the unique ID of the top level storage entity to obtain information on components and subcomponents of the top level storage entity from

multiple CIM objects on the top level storage entity and components and subcomponents of the top level storage entity in the CIMOM;

creating a plurality of storage objects in a computer readable storage medium including information on the top level storage entity and components and subcomponents, and parent-child relationships among the top level storage entity and the components and subcomponents of the top level storage entity;

populating the created storage objects with information received from the CIMOM including identifying the entities in the top level storage entity and the parent child relationships of the top level storage entity, components and subcomponents, and wherein properties of each storage object map directly to properties of at least one CIM class used to represent the top level storage entity and components and subcomponents of the top level storage entity in the CIMOM;

returning information on the storage objects to the CIM client application that sent the first single inquiry; and

receiving a second single inquiry including the unique ID of a component storage entity, wherein the receiving, obtaining, creating, populating, and sending operations are repeated to obtain information concerning the component storage entity and the component storage entity's relationships to other components.

- 45. (Currently Amended) The computer readable storage medium of claim 44, wherein the plurality of storage entity objects include at least one of a disk array system object, storage pool object, volume object, host system object, Fibre Channel object, [[;]] Port object, and disk object.
- 46. (Currently Amended) The computer readable storage medium of claim 45, wherein the top level storage entity comprises the disk array system <u>object</u>, and wherein each <u>storage</u> object other than the disk array system <u>object</u> is associated as a component of the disk array system object or a subcomponent of one of the components of the disk array system object.
- 47. (Previously Presented) The computer readable storage medium of claim 44, wherein the first single inquiry is received from a Storage Resource Manager (SRM) CIM Client Application.

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- 48. (Previously Presented) The computer readable storage medium of claim 44, wherein the first single inquiry includes the unique ID for a disk array, wherein the components and subcomponents for which information is obtained comprise storage pools and disks, and wherein the relationships indicate a relationship of storage pools to the disk array system and of the disks to the storage pools.
 - 49. (Canceled)